

Ser.no. 10/724,146
Amendment dated April 19, 2005
In Reply to Office Action dated January 31, 2005

Amendments to the Specification

Please replace paragraph [0013] with the following amended paragraph:

[0013] In the twin rotor arrangement of the invention, there are two counter-rotating rotors **11** and the curved guide vane **16** in front of them. The guide vane keeps the assembly oriented as shown in Fig. 1, i.e. with the guide ~~vane~~ vane always pointing into the wind, and shields both the returning blade sectors of the rotors. It also offers the opportunity to move the twin rotors apart, creating a larger swept area with no increase in rotor diameter. Of course, this possibility has its limits and the inventor's preliminary test results indicate that there may be an optimal distance between the rotor centers in the range of 1.5 to 2 rotor diameters. A distinct advantage, for the design and construction of the space between the twin rotors, is the possibility of building a support structure behind the guide vane, to stabilize it against the dynamic pressure created by airflow stalled at and divided by the vertex of the guide vane. Although the optimal form of the curved guide vane would look like the front half of a falling drop, the best angle of attack at the two vertical edges adjacent to the rotor blades' circular paths, is the decisive factor and ultimately dictates the preferred overall shape. For the sake of simple design, a circular shape, representing a segment of a cylinder, may turn out to be the best compromise. Another effective form would be just two straight blades joined by a vertical, rounded edge, in the front center of the structure, which is what is illustrated in Fig. 1. The support structure **12** on which the guide vane and rotors are mounted is rotatable around the center axis **13**, which is located on a line perpendicular to a line joining the axis between the two rotor axes **10**, halfway between them. Thus the effect of the structure is that it is self-aligning with the airflow direction.